CLAIMS

1. A fluidic system comprising:

a fluid delivery system comprising a fluidic manifold having an outlet line at one end of a common manifold channel and a waste line at an opposing end of the common channel;

a plurality of solution containers in controllable fluid communication with the outlet line and the waste line of the fluidic manifold; and

a fluidic interface device configured for reversibly coupling to a sensor device; said coupling forming a flow cell assembly thereby, the flow cell assembly comprising:

an inlet channel providing fluid communication between the flow cell assembly and the outlet line of the fluidic manifold;

an outlet channel providing fluid communication between the flow cell assembly and a waste container; and

a reference electrode sealably and removably mounted in the fluidic interface device, said reference electrode in fluid communication with the sensor device.

2. The fluidic system of claim 1, further comprising:

a pneumatic manifold in fluid communication with each of the plurality of solution containers, thereby providing a head pressure over each solution container.

3. A method for operating a manifold device, comprising:

placing an outlet line at one end of a common manifold block channel of the manifold device in fluid communication with a selected fluid source;

simultaneously placing a waste line at an opposing end of the common manifold block channel of the manifold device in fluid communication with a waste container;

initializing the manifold device by priming the common channel with a fluid from the selected fluid source; the fluid flowing bidirectionally to the outline line and the waste line; and

closing the fluid communication between waste line and the waste container, thereby directing the fluid flow unidirectionally through the outlet line.

4. The method of claim 3, wherein the selected fluid source is a solution or reagent from a source container.

5. The method of claim 3 or 4, wherein the solution or reagent flows unidirectionally through the outlet line without carryover.